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Interannual variability in climate and fisheries in Tasmania

G. P. Harris*, P. Davies†, M. Nunez† & G. Meyers§

*Division of Fisheries, CSIRO Marine Laboratories, GPO Box 1538,Hobart, Tasmania 7001, Australia
† Inland Fisheries Commission, Hobart, Tasmania, Australia
‡Department of Geography, The University of Tasmania, Tasmania,Australia
§Division of Oceanography, CSIRO Marine Laboratories, Hobart, Tasmania, Australia

Whereas the interannual variability of the climate and fisheries of the Northern Hemisphere has been extensively documented1, very little is known about the interannual variability in the fisheries of the Southern Pacific Region. Recent work in the Northern Hemisphere has demonstrated the close relations between interannual variability in climate, the timing of events in the water column, the structure of food chains and recruitment to both marine and freshwater fisheries2,3. Forty years (1945−85) of observations at a coastal station (Maria Island, 42°36'S, 148° 16'E) in Tasmania showed strong interannual variability in sea-surface temperatures. Maria Island is close to the region of convergence of the surface currents, on the equatorial side of the Subtropical Convergence (STC) water mass boundary4. The spring bloom was often extended by as much as three months in some years. Previous work4 has not offered any explanation for the observed interannual variability and does not show any links with commercial fisheries. Here we explain the reason for the interannual climatic and oceanic variability in Tasmania and show the links between climate and the fisheries.

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